

TAXA OF INDIAN ACANTHACEAE, VERBENACEAE AND LABIATAE AMENDING AND/OR SUPPLEMENTING CALDER'S (1926) AND RAZI'S (1959) LISTS OF ADDITIONS TO HOOKER'S FLORA OF BRITISH INDIA

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ABSTRACT

Since the publication of the *Flora of British India* by Sir J. D. Hooker during the years 1872-1879, quite a number of additional species have been described from various parts of India by several botanists in different publications. The nomenclature of quite a number of species in Hooker's *Flora* has also changed with the result that several names therein have now come to be regarded as invalid. Calder *et al* (1926) and Razi (1959) published two lists as additions to species in Hooker's *Flora of British India*. The present account is an attempt at supplementing and/or amending the lists of Calder and Razi, with reference to the families Acanthaceae, Verbenaceae and Labiatae. In this account, altogether 232 taxa belonging to these three families alone are given under two separate lists. In the first list 54 taxa are included. They comprise of 53 taxa as additions to Hooker, Calder *et al* and Razi's account of the species under these three families, and one species of Hooker, earlier reported by him from outside India proper, since reported from Indian territory. In the second list, 178 taxa are included, wherein changes in nomenclature, including changes in status have been reported.

Sir J. D. Hooker published the *Flora of British India* in seven volumes during the years 1872 to 1879. Calder, Narayanaswami and Ramaswami in 1926 published a list of species and genera of Indian Phanerogams not included in Sir J. D. Hooker's *Flora of British India*. According to these authors, however, their list did not include new Indian genera and species published for the first time during the years 1898 to 1905, or genera and species published while the *Flora of British India* was in the press (Calder *et al* 1926). That list contained in all about 1694 species from the then British India and Burma as additions to Hooker's *Flora* and recorded up to the end of the year 1924. Out of these, the records under Acanthaceae, Verbenaceae and Labiatae from India were 13 species including one variety of Acanthaceae, 3 species of Verbenaceae and 10 species of Labiatae.

A second list was published by Razi in 1959 to record such species as were found missing in the earlier list of Calder *et al* (1926). In this list, according to Razi, all the Indian species new to science and described between 1924 and 1950 have been incorporated. Altogether 1595 species were included from India and Pakistan to supplement Calder's list, out of which 26 species were under Acanthaceae, 6 species under Verbenaceae and 61 species under Labiatae.

In 1958, however, Raizada published a list to incorporate name changes in common Indian plants. In this, 19 species and 3 varieties of Acanthaceae, 6 species and 1 variety of Verbenaceae and 16 species of Labiatae are included.

Subsequent to the publication of Hooker's *Flora*, quite a number of new species were recorded by various botanists from different parts of India [Duthie, 1895, 1911; Haines, 1922; Gamble, 1924 (Reprinted edition, 1957); Burkill, 1925; Fischer, 1938; Sabnis, 1941; Santapau, 1951, 1953]. New

name changes have also been published (Raizada, 1958). Revisions and monographic work on certain genera or families were also done (Bremekamp, 1944, 1946, 1955, 1961; Mukerjee, 1940; Santapau, 1951). Quite recently several new reports are also made (Santapau, 1951, 1953; Panthaki and Santapau, 1956; Kitamura, 1955; Srinivasan, 1960; Henry *et al* 1961). All these have added considerably to our present day concept of the Flora of India.

During the course of our studies on Acanthaceae, Verbenaceae and Labiatae of India, we found that quite an appreciable number of species belonging to these families were missing from the lists compiled by Calder *et al* (1926) and Razi (1959). A good number of species of these families were not seen in Raizada's compilation of name changes of Indian plants (Raizada, 1958). An attempt is, therefore, made in this communication to enumerate all such species to supplement the information now available from the lists of Calder *et al* (1926), Razi (1959) and Raizada (1958), on the families Acanthaceae, Verbenaceae and Labiatae of India.

For sake of convenience, the various species are presented here under two separate lists. In the first list are included such of the species as are strictly additions to Hooker, Calder and Razi, and thus not listed in any form in any of the above publications, as well as new taxa published subsequent to Hooker, Calder and Razi. The second list comprises of species wherein changes in nomenclature but not in status as well as changes in status, have been published.

Some of the earlier recorded species do not appear to have been validly published as in the case of *Dicliptera roxburghiana* Nees var. *linearis* Kurz, *Strobilanthes persistens* Clarke from Lushai Hills (see Fischer, 1938: 120 & 122), *Ecbolium viride* (Forsk.) Alston var. *dentata* Raizada, *E. viride* (Forsk.) Alston var. *latevirens* Raizada and *E. viride*

(Forsk.) Alston var. *rotundifolia* Raizada (Raizada, 1958: 482). They are, therefore, left out in our lists of new additions. Similarly, while reviewing the genus *Strobilanthes*, Bremekamp (1944) has kept *Strobilanthes pterygorrhachis* Clarke and *Strobilanthes recurvus* Clarke unchanged and with the remarks against each "genus adhuc incertum". Both the species are known from Kohima. We have, however, not included these two species also in our lists.

Altogether 232 taxa have been included in both the lists taken together. Of these, 153 are from Acanthaceae, 16 from Verbenaceae and 63 from Labiatae. Quite a number of species are also cultivated. While no attempt has been made to enumerate all the cultivated species in this paper, some among them which have run wild or occurring as "escapes" are also included.

As regards geographical limits, the contiguous parts of the Indian Union as Nepal, Bhutan, Sikkim, Kashmir, Chitral, Gilgit and parts of Pakistan are also included.

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ENUMERATION OF SPECIES

LIST I

Taxa not listed in any form in Hooker, Calder and Razi and new taxa published subsequent to Hooker, Calder and Razi.

ACANTHACEAE

Asystasia pusilla Clarke in J. Linn. Soc. bot. 25: 55, 1887; Fischer in Rec. bot. Surv. India 12(2): 119, 1938: Keitumkawn, 608 m., Lushai hills, Kohima, 915 m.

Asystasiella neesiana Lindau in Engl. & Pr. Pflanzenf. 4: 326, 1895. Fischer l.c. 119: North Vanlaiphai, 1520 m.; Lushai hills.

Dicliptera ghatica Santapau in Univ. Bombay bot. Mem. 2: 80, 1951: Khandala, W. Ghats.

Eranthemum lateriflorum Clarke in J. Linn. Soc. bot. 25: 55, 1887: West Manipur, 152 m.

E. tetragonum Nees in Wall. Pl. As. Rar. 3: 106, 1832. (*Daedalacanthus tetragonus* T. Anders.); Fischer l.c. 119: North Vanlaiphai, 1520 m., Lushai hills.

The type locality of this taxon is Ripa Saluen ad Troglia, in British Burma, and Hooker also has reported the species from Burma. It is included here as this is an addition to Hooker's Flora, having been recorded from the Indian Union subsequently.

Hemigraphis alternata (Burm. f.) T. Anders. in J. Linn. Soc. bot. 7: 114, 1864. Bremekamp in

Verh. Nederl. Akad. Wet. 41(1): 126, 1944: India.

H. repanda (Linn.) Hall. f. in Nov. Act. Acad. Nat. Cur. 70: 198, 1897. Bremekamp l.c. 135: India.

Justicia anfractuosa Clarke in J. Linn. Soc. bot. 25: 56, 1887. Kohima, 1370 m.; North Manipur, 1215 m.

Monechma debile (Forsk.) Nees in DC. Prodr. 11: 411, 1847. (*Dianthera debilis* Forsk.); Santapau in Univ. Bombay bot. Mem. 2: 91, 1951: Saurashtra, Bombay.

Phlogacanthus gracilis T. Anders. ex Burkill in Rec. bot. Surv. India 10: 336, 1924. R. S. Rao 17631 in Cal.: N.E.F.A. regions, Abor hills.

Pseuderanthemum album Merr. in J. Asiat. Soc. Mal. 1: 37, 1923. Srinivasan in Bull. bot. Surv. India 2: 20, 1960: Malacca coast, Car Nicobar.

P. bicolor (Schrank) Radlk. ex. Lindau in Engl. & Pr. Pflanzenf. 4: 330, f. 133, 1895 (*Eranthemum bicolor* Schrank, *E. pulchellum* Hort., *Pseuderanthemum pulchellum* Merr.) Santapau in Univ. Bombay bot. Mem. 2: 70, 1951: Western India, Bombay, cultivated.

Rungia parviflora Nees var. *ciliata* Bremekamp in Dansk. bot. Arkiv. 20: 88, 1961: India.

Staurogyne perpusilla Henry et Balakrishnan in Bull. bot. Surv. India 3: 205-206, 1961: Bedmakot in Bastar Dt., Madhya Pradesh.

Thunbergia natalensis Hook. in Bot. Mag. t. 5082, 1858. Bor & Raizada in J. Bombay nat. Hist. Soc. 42: 692, 1941: Netal, cultivated in gardens throughout India.

VERBENACEAE

Citharexylum quadrangulare Jacq. in Enum. Pl. Carib. 26, 1760. Sabnis in J. Bombay nat. Hist. Soc. 42: 550, 1941: Ferozepur, Punjab, W. India.

C. spinosum Linn. Sp. Pl.: 625, 1753. Sabnis l.c. 550: Lahore.

Clerodendrum fragrans (Vent.) R. Pr. in Ait. Hort. Kew 4: 65, 1812. (*Volkameria fragrans* Vent.); Santapau in Rec. bot. Surv. India 16(1): 241, 1953: Khandala.

C. thomsonae Balfour in Edinb. New Phil. J. (n.s.) 15: 233, 1862. Bor & Raizada in J. Bombay nat. Hist. Soc. 43(4): 543, 1943: Cultivated.

Duranta repens Linn. in Sp. Pl.: 637, 1753. Santapau in Rec. bot. Surv. India 16(1): 242, 1953: Khandala, often cultivated.

Petrea volubilis Linn. in Sp. Pl.: 626, 1753. Sabnis in J. Bombay nat. Hist. Soc. 42(3): 550, 1941: Lahore.

Verbena bipinnatifida Schau. in DC. Prodr. 11: 551, 1847. Sabnis l.c.: 550: Often cultivated in gardens.

LABIATAE

- Afridia nepetaeformis** Duthie in J. Bombay nat. Hist. Soc., 11: 696-697, 1898: Kurram valley. This taxon is included in this enumeration in analogy with the species of *Salvia rhytidea* Benth., *Calamintha debilis* Benth., *Euphrasia kurramensis* Penn. & Penn. (Scrophulariaceae) and others from Kurram valley only, reported in Razi's list.
- Ajuga forrestii** Diels in Notes Roy. bot. Gard. Edinb. 5: 243, 1912. Kitamura in Fauna & Fl. of Nepal Himalayas 1: 209, 1955; Nepal.
- Colquhounia coccinea** Wall. var. *mollis* Prain in J. Asiat. Soc. Bengal 62: 37, 1893. Mukerjee in Rec. bot. Surv. India 14(1): 155-56, 1940: Sikkim, Bhutan, Mishmi, Assam.
- C. coccinea** Wall. var. *parviflora* Benth. in DC. Prodr. 12: 457, 1847. Mukerjee l.c. 155: Nepal.
- C. coccinea** Wall. var. *vestita* Prain in J. Asiat. Soc. Bengal 62: 36, 1893. Mukerjee l.c. 155: Kashmir, Kumaon, Bhutan.
- Comanthosphace nepalensis** Kitamura et Murata in Acta Phytotax. geo. bot. 15: 109, 1954. Kitamura in Fauna & Fl. of Nepal Himalayas 1: 210-11, 1953: Kakani, Nepal, 2000 m.
- Elsholtzia kachinensis** Prain in J. Asiat. Soc. Bengal 73: 206, 1904. Mukerjee in Rec. bot. Surv. India 14(1): 92, 1940: Kachin hills; Simla, 2000 m.
- Gomphostemma heyneanum** Wall. var. *rottleri* Prain in Ann. Roy. bot. Gard. Calcutta 3: 249, 1811. Mukerjee l.c. 206: Travancore.
- G. wallichii** Prain in J. Asiat. Soc. Bengal 59: 314, 1891. (*Gomphostemma sirobilinum* Benth. var. *elatus* Benth.). Mukerjee l.c. 204: Assam, Kohima; Burma.
- Leucas mollissima** Wall. var. *pilosa* (Haines) Mukerjee in Rec. bot. Surv. India 14(1): 184, 1940: Rajmahal hills.
- L. montana** Spreng. var. *hamiltoniana* (Wall.) Haines in Bot. Bihar & Orissa: 749, 1922. Mukerjee l.c. 183: Monghyr hills.
- L. montana** Spreng. var. *parviflora* Haines in Bot. Bihar & Orissa: 749, 1922. Mukerjee l.c. 183: Angul, Orissa.
- Micromeria nepalensis** Kitamura et Murata in Fauna & Fl. of Nepal Himalayas 1: 214, 1955: Nepal Himalayas.
- Nepeta bracteata** Benth. in DC. Prodr. 12: 395, 1847. Prain in J. Asiat. Soc. Bengal 59: 304, 1890: Baluchistan.
- N. pharica** Prain l.c. 59: 306, 1890. Mukerjee l.c. 127: Phari, Tibet.
- Orthosiphon viscosus** Benth. var. *rubiginosus* Gamble in Fl. Madras 1114, 1924. Mukerjee l.c. 24: S. India.
- Plectranthus pharicus** Prain in J. Asiat. Soc. Bengal 59: 297, 1890. Mukerjee l.c. 46: E. Himalayas; N. Sikkim: Tibet.
- Pogostemon plectranthoides** Desf. var. *glaberrima* Santapau in Kew Bull. 3(3): 492, 1949 et Rec. bot. Surv. India 16(1): 244, 1953: Khandala.
- Salvia campanulata** Wall. var. *fissa* Peter-Stibral in Fedde Repert. 39: 179, 1934. Mukerjee l.c. 114: Kumaon; Garwahl; Sikkim.
- S. campanulata** Wall. var. *hirtella* Peter-Stibral in Fedde Repert. 39: 179, 1934. Mukerjee l.c. 115: Nepal; Sikkim; Bhutan.
- S. campanulata** Wall. var. *nepalensis* Peter-Stibral in Fedde Repert. 39: 179, 1934. Mukerjee l.c. 114: Nepal.
- S. campanulata** Wall. var. *pilinophylla* Peter-Stibral in Fedde Repert. 39: 179, 1934. Mukerjee l.c. 114: Sikkim; Nepal.
- S. lacei** Mukerjee in Notes Roy. bot. Gard. Edinb. 95: 304, 1939 et l.c. 108: Baluchistan.
- S. leucantha** Cav. in Ann. hist. nat. 2: 112, 1806; Rao in Bull. bot. Surv. India 2: 84, 1960: Nainital.
- S. mekongensis** Peter-Stibral var. *assamensis* Peter-Stibral in Fedde Repert. 39: 181, 1934. Mukerjee l.c. 113: N. Assam, Delai valley.
- S. smithii** Peter-Stibral in Acta Horti. Goth. 9: 3, 1934. Kitamura in Fauna & Fl. of Nepal Himalayas 1: 215, 1955: Nepal Himalayas.
- S. spinosa** Linn. in Mant. 2: 511, 1771. Mukerjee l.c. 109: Kurram valley.
- S. splendens** Zell. in Neuwid Reise Brus. 2: 335, 1820; Rao in Bull. bot. Surv. India 2: 84, 1960: Bageshwar.
- Scutellaria andamanica** Prain in J. Asiat. Soc. Bengal 59: 307, 1890. Mukerjee l.c. 144: South Andamans.
- S. kingiana** Prain in J. Asiat. Soc. Bengal 59: 308, 1890. Mukerjee l.c. 147: E. Himalayas: N. Phari, Tibet.
- S. petiolata** Hemsl. ex Lace & Prain in J. Asiat. Soc. Bengal 59: 308, 1890. Mukerjee l.c. 143: Baluchistan.
- Zataria multiflora** Boiss. var. *elatior* Boiss. Fl. Orient. 4: 562, 1879. Duthie in Rec. bot. Surv. India 1: 166, 1895: Nirkandi, 1828 m.; Chitral.

LIST II

Species with changes in nomenclature, including changes in status.

ACANTHACEAE

- Andrographis laxiflora** (Bl.) Lindau in Engl. & Pr. Pflanzenf. 4: 323, 1895. (*Andrographis tenuiflora* T. Anders.). Bremekamp in Dansk. bot. Arkiv. 20: 75, 1961: Andamans; Assam.
- Asystasia dalzelliana** Santapau in Kew Bull. 3(2): 276, 1948 et Rec. bot. Surv. India 16(1): 229, 1953. (*Asystasia violaceae* Dalz. 1884 non 1850); Khandala.
- Baphicanthus cusia** (Nees) Bremek. in Verh. Nederl. Akad. Wet. 41(1): 190, 1944. (*Strobilanthes flaccidifolius* Nees): Bengal, Assam, often cultivated.
- Blepharis linariaefolia** Pers. Syn. 2: 180, 1807. (*Blepharis sindica* T. Anders.). Chopra et al Gloss. Med. Pl. 38, 1956: Bombay; Uttar Pradesh; Punjab; Rajputana; Sind; Gujarat.
- B. maderaspatensis** (Linn.) Heyne ex Roth. Nov. Pl. Sp.: 320, 1821. (*Acanthus maderaspatensis* Linn.; *Blepharis boerhaviaefolia* Pers.). Raizada in Indian For. 84: 474, 1958: Deccan Peninsula; Mt. Abu; Bihar; Orissa.
- Calacanthus grandiflora** (Dalz.) Radlk. in Sitzung. Math. Phys. Acad. Muench. 13: 279, 1883. Santapau in Univ. Bombay bot. Mem. 2: 50, 1951: Khandala, Bombay, Kanara, Sahydris, W. India.
- Calophanoides salicifolia** (T. Anders.) Bremek. in Dansk. bot. Arkiv. 20: 84, 1961. (*Justicia salicifolia* T. Anders.): Assam.
- Carvia callosa** (Nees) Bremek. in Verh. Nederl. Akad. Wet. 41(1): 187, 1944. (*Strobilanthes callosus* Nees). Santapau in Univ. Bombay bot. Mem. 2: 46, 1951: Bombay, W. Ghats; Madhya Pradesh.
- Didyplosandra andersonii** (Bedd.) Bremek. l.c. 177 (*Strobilanthes andersonii* Bedd.): South India, 1828 m.
- D. bolumpattiana** (Bedd.) Bremek. l.c. 177. (*Strobilanthes bolumpattensis* Bedd.) South India, Coimbatore, 1828 m.
- D. lurida** (Wight) Bremek. l.c. 178. (*Strobilanthes luridus* Wight): Nilgiris, 914 m.-1520 m.
- Diflugossa colorata** (Nees) Bremek. l.c. 237. [*Strobilanthes coloratus* (Nees) T. Anders., *Strobilanthes laevigatus* Clarke]: Himalayas; Khasia Mts.
- D. divaricata** (Nees) Bremek. l.c. 246. [*Strobilanthes divaricatus* (Nees) T. Anders.]: Himalayas.
- D. paupera** (Clarke) Bremek. l.c. 246. (*Strobilanthes pauper* Clarke): Assam.
- Dipteracanthus beddomei** (Clarke) Santapau in Indian For. 79: 322, 1953. (*Ruellia beddomei* Clarke): Chotanagpur; Orissa.
- D. cernuus** (Roxb.) Santapau l.c. 322. (*Ruellia cernua* Roxb.): Bombay; Ranchi; Parsanath.
- D. longifolius** Stocks in Kew J. Bot. 4: 177, 1852. [*Ruellia longifolia* (Stocks) T. Anders.]. Santapau in Indian For. 79: 322, 1953 et in Univ. Bombay bot. Mem. 2: 24, 1951: Bombay(?) Sind.
- D. patulus** (Jacq.) Nees in Wall. Pl. Asiat. Rar. 3: 82, 1832. (*Ruellia patula* Jacq.). Santapau in Indian For. 79: 322, 1953: Western India, Cutch, Saurashtra, Rajputana, Deccan.
- D. prostratus** (Poir.) Nees in Wall. Pl. Asiat. Rar. 3: 81, 1832. (*Ruellia prostrata* Poir.). Santapau l.c. 321: India.
- D. suffruticosus** (Roxb.) Voigt. in Hort. Sub. Cal. 483, 1845. (*Ruellia suffruticosa* Roxb.). Santapau l.c. 322: Orissa, above 305 m.
- Ditrichospermum secundum** (T. Anders.). Bremek. in Verh. Nederl. Akad. Wet. 41(1): 189, 1944. [(*Strobilanthes secundus* T. Anders.): Assam.]
- Dyschoriste dalzellii** (T. Anders.) Kuntze in Rev. Gen. Pl. 2: 486, 1891. (*Calophanes dalzellii* T. Anders.). Santapau in Univ. Bombay bot. Mem. 2: 31, 1951: Western Ghats, Bombay, Poona.
- D. erecta** (Burm.) Kuntze. l.c. 485. (*Ruellia erecta* Burm., *Calophanes nagchana* Nees, *Dyschoriste depressa* Nees). Santapau l.c. 31: Mysore, Dharwar, Bihar, Gujarat.
- D. littoralis** (T. Anders.) Nees in Wight l.c. t. 447 et Wall. Pl. Asiat. Rar. 3: 81, 1832. (*Calophanes littoralis* T. Anders.). Gamble Fl. Madras 2 (repr. ed.): 718, 1957: Carnatic, W. Ghats, Madras.
- D. vagans** (Wight) Kuntze l.c. 486. (*Calophanes vagans* Wight). Santapau in Univ. Bombay bot. Mem. 2: 31, 1951: Bombay, Dharwar, Kanara, Belgaum.
- Ecbolium viride** (Forsk.) Alston in Trimen Handbook Fl. Ceylon 6: 229, 1931. (*Justicia viridis* Forsk., *Ecbolium linneanum* Kurz) Chopra et al Gloss. Med. Pl. 103, 1956: Deccan Peninsula, Madras, Bombay, Orissa, Bengal, Bihar.
- Eranthemum capense** Linn. in Sp. Pl. 9: 1753. (*Daedalacanthus montanus* T. Anders.). Santapau in Univ. Bombay bot. Mem. 2: 33, 1951: Bombay, W. India.
- E. capense** Linn. var. **concanense** (T. Anders.). Santapau l.c. 34. (*Daedalacanthus montanus* var. *concanensis* T. Anders.): Bombay.
- E. griffithii** (T. Anders.) Bremek. in Verh. Nederl. Akad. Wet. 45(1): 35, 1948. (*Daedalacanthus griffithii* T. Anders.) Bhutan.
- E. nervosum** (Vahl) R. Br. Prodr. 1: 477, 1810. (*Daedalacanthus nervosus* T. Anders, *Justicia nervosa* Vahl): Himalayas; Punjab; Bhutan; Sylhet.
- E. purpurascens** Wight ex Nees in Wall. Pl. Asiat. Rar. 3: 106, 1832. (*Daedalacanthus purpurascens*,

- T. Anders.): Central India, 305 m.-1220 m.; Upper Assam; Bihar; Bombay.
- Eranthemum roseum** (Vahl) R. Br. Prodr. 1: 477, 1810. (*Justicia rosea* Vahl, *Daedalacanthus roseus* T. Anders., *Eranthemum pulchellum* And. var. *roseum* Kuntze): Deccan Peninsula; Bombay; Mangalore; Kathiawar.
- E. splendens** Hort. ex. Vilm. in Blumeng. ed. 3, sieb. vess. 1: 806, 1895. (*Daedalacanthus splendens* T. Anders.): Sikkim Himalayas.
- Gantelbua urens** (Heyne ex Roth.) Bremek. in Verh. Nederl. Akad. Wet. 41(1): 148, 1944. (*Hemigraphis dura* T. Anders.): Santapau in Univ. Bombay bot. Mem. 2: 28, 1951: Deccan Peninsula; Madras; Nilgiris; Belgaum; Bombay; Madhya Pradesh.
- Gendarussa vulgaris** Nees in Wall. Pl. Asiat. Rar. 3: 104, 1832. (*Justicia gendarussa* Burm.). Bremekamp in Dansk. bot. Arkiv. 20: 81, 1961: India.
- Goldfussia bracteata** Nees in Wall. Pl. Asiat. Rar. 3: 88, 1832. (*Strobilanthes quadrangularis* Clarke). Bremekamp in Verh. Nederl. Akad. Wet. 41(1): 231, 1944: Himalayas.
- G. capitata** Nees in Wall. Pl. Asiat. Rar. 3: 88, 1832. [*Strobilanthes capitatus* (Nees) T. Anders.]. Bremekamp l.c. 231: Himalayas.
- G. dalhousiana** Nees in DC. Prodr. 11: 174, 1847. [*Strobilanthes dalhousiana* (Nees) Clarke]. Bremekamp l.c. 231: Himalayas.
- G. discolor** Nees in DC. Prodr. 11: 172, 1847. [*Strobilanthes discolor* (Nees) T. Anders.]. Bremekamp l.c. 231: Himalayas.
- G. glomerata** (Nees) Bremek. l.c. 230. [*Strobilanthes glomeratus* (Nees) T. Anders.]: Khasia, often cultivated in oriental countries.
- G. isophylla** Nees in Wall. Pl. Asiat. Rar. 3: 88, 1832. [*Strobilanthes isophyllus* (Nees) T. Anders.]. Bremekamp l.c. 231: Assam.
- G. multident** (Clarke) Bremek. l.c. 232. (*Strobilanthes multident* Clarke): Himalayas.
- G. oligocephala** (T. Anders. ex Clarke) Bremek. l.c. 232. (*Strobilanthes oligocephalus* T. Anders.): Himalayas.
- G. penstemonoides** Nees in Wall. Pl. Asiat. Rar. 3: 88, 1832. [*Strobilanthes penstemonoides* (Nees) T. Anders.]. Bremekamp l.c. 232: Himalayas.
- G. sessilis** Nees in DC. Prodr. 11: 172, 1847. (*Strobilanthes rhombifolius* Clarke). Bremekamp l.c. 232: Assam.
- Haplanthus neilgherryensis** Wight, Ic. t. 1556, 1850; (*Haplanthus tentaculatus* Nees var. *neilgherryensis* Clarke): Santapau in Rec. bot. Surv. India 16(1): 225, 1953. Gamble Fl. Madras (repr. ed.) 2: 737, 1957: Malabar; Coorg; Nilgiris; Khandala, upto 915 m.
- Hemiadelphis polysperma** Nees in Wall. Pl. Asiat. Rar. 3: 80, 1832. [*Hygrophila polysperma* (Roxb.) T. Anders.]. Bremekamp in Dansk. bot. Arkiv. 20: 66, 1951: Assam; Bombay, Khandala.
- Hygrophila auriculata** (Sch.) Heine in Kew Bull. 16(2): 172, 1962. [*Asteracantha longifolia* (Linn.) Nees, *Hygrophila spinosa* T. Anders.]: Throughout India.
- H. erecta** (Burm.) Hochr. in Candollea 5: 230, 1934. (*Hygrophila quadrivalvis* Nees). Bremekamp in Dansk. bot. Arkiv. 20: 66, 1961: East Bengal.
- Hymenochlaena decurrens** (Nees) Bremek. in Verh. Nederl. Akad. Wet. 41(1): 269, 1944. (*Strobilanthes adnatus* Clarke, *Strobilanthes adenophorus* Bedd.): South India: Upper Assam, Khasia.
- Lepidagathis incurva** D. Don. Prodr.: 119, 1825. (*Lepidagathis hyalina* Nees). Santapau in Univ. Bombay bot. Mem. 2: 74, 1951: Ainsli Ghat, W. Ghats; Bihar; Assam; Kashmir, 1220 m.
- L. incurva** D. Don. var. **mucronata** Clarke ex Cooke in Fl. Bombay 2: 397, 1904. (*Lepidagathis hyalina* Nees var. *mucronata* Clarke). Santapau l.c. 74: W. Ghats.
- L. amabilis** (Clarke) Bremek. in Verh. Nederl. Akad. Wet. 41(1): 184, 1944. (*Strobilanthes amabilis* Clarke): South India.
- Leptacanthus rubicundus** (Nees) in Wall. Pl. Asiat. Rar. 3: 90, 1832. [*Strobilanthes rubicundus* (Nees) T. Anders.]. Bremekamp l.c. 184: Deccan Peninsula; Coorg; Wyanad.
- Leptostachya debilis** (Clarke) Bremek. l.c. 45(2): 39, 1948. (*Dianthera debilis* Clarke): Khasia.
- Listrobanthes khasyana** (Nees) Bremek. l.c. 41(1): 254, 1944. (*Strobilanthes khasyanus* (Nees) T. Anders.): Himalayas, Khasia Mts.
- Mackenzia gracilis** (Bedd.) Bremek. l.c. 41(1): 182, 1944. (*Strobilanthes gracilis* Bedd., *Strobilanthes beddomei* T. Anders.): Indian Peninsula.
- M. homotropa** (Nees) Bremek. l.c. 182. (*Strobilanthes homotropus* Nees, *Strobilanthes interrupta* Benth.): Indian Peninsula.
- M. integrifolia** (Dalz.) Bremek. l.c. 182. (*Strobilanthes perfoliatus* T. Anders.). Santapau in Univ. Bombay bot. Mem. 2: 43-44, 1951: South India, Kanara.
- M. newii** (Bedd. ex Clarke) Bremek. l.c. 182, (*Strobilanthes newii* Bedd. ex Clarke): Indian Peninsula.
- M. sexennis** (Nees) Bremek. l.c. 182. (*Strobilanthes sexennis* Nees): Nilgiris.
- M. violacea** (Bedd.) Bremek. l.c. 182. (*Strobilanthes violaceus* Bedd.): Indian Peninsula.

- Meyenia hawtayneana** (Wall.) Nees in Wall. Pl. Asiat. Rar. 3: 78, 1832. (*Thunbergia hawtayneana* Wall.). Santapau in Univ. Bombay bot. Mem. 2: 10, 1951: Nilgiris; Kanara; Dharwar; Bombay.
- Nilgirianthus asper** Santapau l.c. 42. (*Strobilanthes asper* Wight): South India; Bombay; Assam.
- N. barbatus** (Nees) Bremek. l.c. 172. (*Strobilanthes barbatus* Nees). Santapau l.c. 39: Bombay; Travancore.
- N. campanulatus** (Wight) Bremek. l.c. 172. [*Strobilanthes campanulatus* Wight, *Strobilanthes heyneana* Nees var. *campanulata* (Wight) Clarke]: Indian Peninsula.
- N. ciliatus** (Nees) Bremek. l.c. 172. (*Strobilanthes ciliatus* Nees). Santapau l.c. 40: Bombay.
- N. circarensis** (Gamble) Bremek. l.c. 173. (*Strobilanthes circarensis* Gamble): Indian Peninsula.
- N. decurrens** (Nees) Bremek. l.c. 173. (*Strobilanthes decurrens* Nees): Indian Peninsula.
- N. foliosus** (Wight) Bremek. l.c. 173. [*Strobilanthes foliosus* (Wight) T. Anders.]: Peninsular India.
- N. heyneanus** (Nees) Bremek. var. *neesii* Bremek. l.c. 173. (*Strobilanthes heyneanus* Nees). Santapau in Univ. Bombay bot. Mem. 2: 40, 1951: Bombay.
- N. lupulinus** (Wall.) Bremek. l.c. 173. (*Strobilanthes lupulinus* Nees). Santapau l.c. 41: Bombay.
- N. meeboldii** (Craib) Bremek. l.c. 173. (*Strobilanthes meeboldii* Craib): Indian Peninsula.
- N. membranaceus** (Talb.) Bremek. l.c. 280. (*Strobilanthes membranaceus* Talb.). Santapau l.c. 43: Bombay.
- N. neilgherrensis** (Bedd.) Bremek. l.c. 173. (*Strobilanthes neilgherrensis* Bedd.): Indian Peninsula.
- N. papillosus** (T. Anders.) Bremek. l.c. 173. (*Strobilanthes papillosus* T. Anders.): Indian Peninsula.
- N. perrottetianus** (Nees) Bremek. l.c. 173. (*Strobilanthes perrottetianus* Nees): Indian Peninsula.
- N. reticulatus** (Stapf.) Bremek. l.c. 173. (*Strobilanthes reticulatus* Stapf.). Santapau l.c. 41: W. Ghats, Mahabaleshwar, Khandala, Bombay.
- N. urceolaris** (Gamble) Bremek. l.c. 173. (*Strobilanthes urceolaris* Gamble): Indian Peninsula.
- N. warreensis** (Dalz.) Bremek. l.c. 173. (*Strobilanthes warreensis* Dalz.). Santapau l.c. 41: Bombay.
- N. wightianus** (Nees) Bremek. l.c. 173. (*Strobilanthes wightianus* Nees): Indian Peninsula.
- Perilepta auriculata** (Nees) Bremek. l.c. 194. (*Strobilanthes auriculatus* Nees): Central India.
- Peristrophe baphica** (Spreng.) Bremek. in Nova Guinea 8: 149, 1957. [*Peristrophe tinctoria* (Roxb.) Nees]. Bremekamp in Dansk. bot. Arkiv. 20: 80, 1961: India.
- Phaulopsis dorsiflora** (Retz.) Santapau in Kew Bull. 3(1): 276, 1948. (*Phaylopsis parviflora* Willd.). Santapau in Univ. Bombay bot. Mem. 2: 30, 1951: N. Kanara, Dharwar, Bombay; Bengal; N. W. Himalayas.
- Phlebophyllum canaricum** (Bedd.) Bremek. l.c. 169. (*Strobilanthes canaricus* Bedd.): Indian Peninsula.
- P. humile** (Gamble) Bremek. l.c. 169. (*Strobilanthes humilis* Gamble): Indian Peninsula.
- P. jeyporensis** (Bedd.) Bremek. l.c. 169. (*Strobilanthes jeyporensis* Bedd.): Indian Peninsula.
- P. kunthianum** Nees in Wall. Pl. Asiat. Rar. 3: 83, 1832. [*Strobilanthes kunthianus* (Nees) T. Anders.]. Bremekamp l.c. 169: Indian Peninsula.
- P. lanatum** (Nees) Bremek. l.c. 169. (*Strobilanthes gossypinus* T. Anders.): Indian Peninsula.
- P. lawsonii** (Gamble) Bremek. l.c. 169. (*Strobilanthes lawsonii* Gamble): Indian Peninsula.
- P. versicolor** (Wight) Bremek. l.c. 169. (*Strobilanthes cuspidatus* T. Anders.): Indian Peninsula.
- Pleocaulus ritchei** (Clarke) Bremek. l.c. 185. (*Strobilanthes sessilis* Nees var. *ritchei* Clarke). Santapau l.c. 45: Travancore: Nilgiris, 1830 m-2440 m.
- P. sessilis** (Nees) Bremek. l.c. 185. (*Strobilanthes sessilis* Nees): Indian Peninsula.
- P. sessiloides** (Wight) Bremek. l.c. 185. (*Strobilanthes sessilis* Nees var. *sessiloides* Wight): Indian Peninsula.
- Pseudacchmanthera glutinosa** (Nees) Bremek. l.c. 188. (*Strobilanthes glutinosus* Nees): Himalayas.
- Pseudanthemum crenulatum** Radlk. in Sitz. K. Bayer Akad. Wiss. 13(2): 256-314, 1883. (*Eranthemum crenulatum* Lindl.), Kanjilal et al Fl. Assam 3: 449, 1939: Khasia hills.
- P. indicum** A.M. & J.M. Cowan, Tr. of Bengal: 98, 1929. Kanjilal et al l.c. 448: Jaintia hills, upto 1130 m.
- P. leptanthus** (Clarke) Lindau in Engl. & Pr. Pflanzf. 4: 36, 1895. (*Eranthemum leptanthus* Clarke). Kanjilal et al l.c. 450: Mishmi hills.
- P. malabaricum** (Clarke) Gamble, Fl. Madras: 1064, 1924. (*Eranthemum malabaricum* Clarke). Santapau in Univ. Bombay bot. Mem. 2: 70, 1951: Bombay, Khandala, Madras, N. Kanara; Kerala.
- P. palatiferum** ? (Nees) Radlk. in Sitz. K. Bayer Akad. Wiss. 13(2): 287, 1883. (*Eranthemum palatiferum* ? Nees). Kanjilal et al l.c. 449: Lakhimpur, Khasia hills.

- Pteracanthus agrestis** (Clarke) Bremek. l.c. 199. (*Strobilanthes agrestis* Clarke): Himalayas.
- P. alatus** (Wall. ex Nees) Bremek. l.c. 199. (*Strobilanthes wallichii* Nees): Himalayas.
- P. angustifrons** (Clarke) Bremek. l.c. 199. (*Strobilanthes angustifrons* Clarke). Raizada in Indian For. 84(8): 504, 1958: N. W. Himalayas, Kangra; Punjab.
- P. boerhaavioides** (T. Anders.) Bremek. l.c. 199. (*Strobilanthes boerhaavioides* T. Anders.): Himalayas.
- P. calycinus** (Nees) Bremek. l.c. 199. (*Strobilanthes helictus* T. Anders.): Himalayas.
- P. extensus** (Nees) Bremek. l.c. 199. (*Strobilanthes extensus* Nees): Assam.
- P. inflatus** (T. Anders.) Bremek. l.c. 199. (*Strobilanthes inflatus* T. Anders.): Himalayas.
- P. lachenensis** (Clarke) Bremek. l.c. 199. (*Strobilanthes lachenensis* Clarke): Himalayas.
- P. nobilis** (Clarke) Bremek. l.c. 199. (*Strobilanthes nobilis* Clarke): Assam.
- P. parryorum** (Fisch.) Bremek. l.c. 199. (*Strobilanthes parryorum* Fischer): Assam.
- P. phyllocaulos** (Clarke) Bremek. l.c. 199. (*Strobilanthes phyllocaulos* Clarke): Assam.
- P. rotundifolius** (D. Don) Bremek. l.c. 199. [*Strobilanthes lamifolius* (Nees) T. Anders.]: Himalayas.
- P. rubescens** (T. Anders.) Bremek. l.c. 199. (*Strobilanthes rubescens* T. Anders.): Assam.
- P. subnudatus** (Clarke) Bremek. l.c. 199. (*Strobilanthes subnudatus* Clarke): Himalayas.
- P. urophyllus** (Nees) Bremek. l.c. 199. (*Strobilanthes urophyllus* Nees): Assam.
- Pyrrothrix polythrix** (T. Anders.) Bremek. l.c. 210. (*Strobilanthes polythrix* T. Anders.): Khasia.
- Rhaphidospora glabrituba** Bremek. l.c. 45(2): 48, 1948. (*Justicia glabra* Koen. ex Roxb.): Deccan Peninsula.
- Rhinacanthus nasuta** (Linn.) Kurz in J. Asiat. Soc. Bengal 39: 79, 1870. (*Rhinacanthus communis* Nees). Santapau in Univ. Bombay bot. Mem. 2: 92, 1951: Bombay, Purandar, Khandala; Madras; Bihar; Orissa.
- Rostellularia crinita** Nees in DC. Prodr. 11: 373, 1847. (*Justicia micrantha* Heyne ex Wall.). Santapau in Rec. bot. Surv. India 16(1): 235, 1953: Deccan Peninsula, Kanara, Madras; Bengal.
- R. serpyllifolia** (Gamble) Bremek. in Verh. Nederl. Akad. Wet. 45(2): 62, 1948. (*Justicia serpyllifolia* Gamble): Madras; Chota Nagpur; Deccan.
- R. sundana** Bremek. l.c.: 62. [*Rostellularia procumbens* (Linn.) Nees, *Justicia procumbens* Linn.]: Orissa, Bihar.
- Sericocalyx durus** Bremek. l.c. 41(1): 163, 1944. (*Strobilanthes phyllostachys* Kurz var. *dura* Clarke): Chittagong.
- S. scaber** (Nees) Bremek. l.c. 163. (*Strobilanthes scaber* Nees): Assam.
- Staurogyne argentea** Wall. Pl. Asiat. Rar. 3: 80, 1832; Cat. 4905. (*Ebermaiera astaurogyne* Nees). Fischer in Rec. bot. Surv. India 12(2): 121, 1938: Aijal, 914 m.; Lushai hills.
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- S. maculata** (Wall. ex Nees) Bremek. l.c. 254. (*Strobilanthes maculatus* Wall. ex Nees): Khasia Mts.
- S. monadelpha** (Nees) Bremek. l.c. 254. (*Strobilanthes monadelphus* Nees): Assam.
- S. petiolaris** (Nees) Bremek. l.c. 255. (*Strobilanthes petiolaris* Nees): Himalayas.
- Taeniandra micrantha** (Wight) Bremek. l.c. 280. (*Strobilanthes micranthus* Wight): Nilgiris.
- Tarphochlamys affinis** (Griff.) Bremek. l.c. 188. (*Strobilanthes acrocephalus* T. Anders.): Assam.
- Thelepaepale ixiocephala** (Benth.) Bremek. l.c. 188. (*Strobilanthes ixiocephalus* Benth.). Santapau in Univ. Bombay bot. Mem. 2: 48, 1951: Deccan Peninsula; Madras; Bombay.
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- Trienacanthus griffithianus** Nees in DC. Prodr. 11: 169, 1847. [*Strobilanthes griffithianus* (Nees) T. Anders.]. Bremekamp l.c. 201: Khasia hills.
- Xenacanthus heteromallus** (T. Anders. ex Clarke) Bremek. l.c. 176. (*Strobilanthes heteromallus* T. Anders. ex Clarke; *Strobilanthes scabra* Nees): Indian Peninsula.
- X. pulneyensis** (Clarke) Bremek. l.c. 176. (*Strobilanthes pulneyensis* Clarke): Indian Peninsula.
- X. zenkerianus** (Nees) Bremek. l.c. 176. [*Strobilanthes zenkerianus* (Nees) T. Anders.]: Indian Peninsula.

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- Phyla nodiflora** (Linn.) Green in Pittonia 4: 46, 1899. (*Lippia nodiflora* Rich.). Santapau l.c. 237: Throughout India.
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- C. umbrosum** (Fisch. et Mey) Kuntze in Rev. Gen. Pl. 2: 516, 1891. (*Calamintha umbrosa* Fisch. et Mey). Kitamura l.c. 209: Himalayas: Nepal; Kashmir; Bhutan; Khasia; Gangetic Plains; W. Ghats; Kanara; S. India.
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- Isodon coetsa** (Spr.) Kudo in Lab. Sino. Jap.: 131, 1929. (*Plectranthus coetsa* Ham.). Kitamura l.c. 212: Himalayas; Muree hills to Mishmi; Khasia; Nepal.
- I. plectranthoides** Schrad ex Kudo l.c. 131. (*Plectranthus rugosus* Wall.). Kitamura l.c. 212: Himalayas Kashmir; Nepal; Bhutan.
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- P. nilagiricus** Gamble, Fl. Madras: 1134, 1924. (*Pogostemon rotundatus* Wight). Mukerjee l.c. 73: Nilgiris.
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